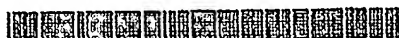


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(54) Title: THE PROCESS OF MANUFACTURING PHARMACEUTICAL GRADE TANNATES

(57) Abstract: Antihistamines are available in the form of free bases as well as salts i.e. hydrochloride, maleate, tannate etc. Frequently, it is necessary to utilise antihistamines in the form of tannate salt because such salts are generally quite stable and may be administered in such form without untoward side effects. Tannic acid, also known as tannin, is a well known naturally occurring substance. Tannic acid, which is available commercially, usually contain about 5 % of water, has a molecular weight of about 1700 and is typically produced from Turkish or Chinese nutgall. Antihistamine tannates, presently manufactured commercially, are relatively impure. Such tannates are prepared by the reaction of antihistamine free base with tannic acid and using a volatile solvent, isopropanol (IPA). The yield is only fair (around 70 %) and decomposition products e.g. 2-5 % along with significant amount of volatile solvent, isopropanol (6-10 %) remains with the product, which cannot be removed. According to present invention, for specific types of tannates, isopropanol (IPA) is removed by adding water while stirring and dispersing the wet cake of tannate. It is then filtered and the tannate residue is dried to obtain pharmaceutical grade tannate. Tannates like chlorpheniramine tannate and pyrilamine tannates have been prepared by this method.

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
STN: REGISTRY AND CAPLUS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3,282,789 A. (MARTY et al) 1 November 1966 (01.11.1966), whole document	1-10
Y	US 5,663,415 A. (CHOPDEKAR et al) 2 September 1997 (02.09.1997), columns 2-3, examples	1-10

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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